

WHAT IS CLAIMED IS:

1. A mobile communication terminal device  
comprising:

an external connector having a predetermined  
terminal arrangement structure;

a first external interface sending and receiving  
a signal in accordance with a first protocol via said  
external connector between the mobile communication  
terminal device itself and an external device;

a second external interface sending and receiving  
a signal in accordance with a second protocol being  
different from the first protocol via said external  
connector between the mobile communication terminal  
device itself and an external device;

first determination means for determining a third  
external interface incorporated in the external device  
to be connected to the external connector; and

an interface selection means for selecting  
an external interface corresponding to the third  
external interface from the first and second external  
interfaces based on a determination result of the first  
determination means.

2. The mobile communication terminal device  
according to claim 1, wherein a part of terminals of  
the external connector is shared with the first  
external interface and the second external interface.

3. The mobile communication terminal device

according to claim 1, wherein

the first determination means detects a voltage  
value output from a specific terminal via external  
connector when an external device is connected to the  
5 external connector to determine a third interface  
incorporated in the external devices.

4. The mobile communication terminal device  
according to claim 1, wherein

the first determination means detects an  
10 identification signal pattern output from a specific  
terminal via the external connector when an external  
device is connected to the external connector to  
determine a third interface incorporated in the  
external device.

15 5. The mobile communication terminal device  
according to claim 1, further comprising first display  
displaying a determination result by the first  
determination means.

20 6. The mobile communication terminal device  
according to claim 1, further comprising:

authentication means for conducting a  
authentication procedure between the mobile  
communication terminal device and an external device  
via an external interface selected from first and  
25 second external interfaces;

second determination means for determining  
a connection form between the mobile communication

terminal device itself and the external device based on an authentication result of the authentication means;

connection control means for controlling a connection of the external device to the mobile communication terminal device itself based on a determination result of the second determination means.

7. The mobile communication terminal device according to claim 6, wherein said second determination means detects and a specification of an external device and determines whether or not the external device can be connected to the mobile communication terminal device itself.

8. The mobile communication terminal device according to claim 3, further comprising second display displaying the determination result by said second determination means.

9. A mobile communication terminal device comprising:

an external connector comprising a USB (Universal Serial Bus) terminal and an additional terminal;

a first external interface providing a USB slave function;

a second external interface which is different from the first external interface concerning a protocol;

first determination means for determining whether or not the an external device connected to the external

connector comprises a third external interface  
providing a USB host function;

interface selection means for selecting the first  
external interface when it is determined that an  
5 external device provides a USB host function while  
selecting the second external interface when it is  
determined that the external device does not provide  
a USB host function based on a determination result of  
the first determination means.

10 10. The mobile communication terminal device  
according to claim 9, wherein

said first determination means comprises:

means for detecting a voltage value output from  
a specific terminal via the external connector when the  
15 external device is connected to the external connector;  
and

means for determining a kind of the third external  
interface incorporated in the external device based on  
the detection result by said voltage value detection  
20 means.

11. The mobile communication terminal device  
according to claim 9, wherein

the first determination means comprises;

means for detecting identification signal pattern  
25 output from a specific terminal via the external  
connector in the case where the external device are  
connected to the external connector; and

for determining type of the third external interface incorporated in the external device based on the detection result of said signal pattern detection means.

5           12. The mobile communication terminal device according to claim 9, wherein said first external interface transmits a signal between the external device and the mobile communication terminal device via the USB terminal of the external connector in the case  
10           where said first external interface is selected, while the second external interface selectively uses a part of the USB terminal of the external connector and an additional terminal to transmit a signal between the external device and the mobile communication terminal  
15           device in the case where the second external interface is selected.

          13. The mobile communication terminal device according to claim 9, further comprising;  
          authentication means for conducting authentication  
20           procedure between the external device and the mobile communication terminal device via the first external interface;

          second determination means for determining a connection form between the terminal of the mobile  
25           communication terminal device itself and the external device based on the authentication result by the authentication means; and

connection control means for controlling the connection of the external device to the mobile communication terminal device itself on the basis of the determination result of the second determination means.

14. The mobile communication terminal device according to claim 13, wherein the authentication means determines whether or not the external device is a battery charger;
- 10        the second determination means, in the case where the authentication means determines that the external device is a battery charger, detects a standard value of the battery charger to determine whether or not the battery charger can be connected; and
- 15        the connection control means connects the battery charger and a power source circuit in the mobile communication terminal device in the case where the second determination means determines that the battery charger can be connected, while cut off the battery
- 20        charger from the power source circuit in the case where the second determination means determines that the battery charger cannot be connected.